MATERIALS SPECIFICATION FOR PRESSURE REGULATING VALVES

1. Service:

The function of this valve is to reduce an existing high pressure to a pre-adjusted lower downstream pressure for varying rates of flow without causing shock or water hammer on the system.

2. Valve Description:

The pressure regulating valve shall be a hydraulically operated, pilot controlled, diaphragm or piston activated globe or angle valve. The valve shall be fully stainless steel or bronze-trimmed. An indicator rod shall be furnished as an integral part of the valve to show the valve position. The valve shall be designed to provide an access opening in the valve body for removing the internal parts without removing the main valve body from the line.

3. Material:

Valve body, flanges and covers shall be cast iron conforming to ASTM A 26, Class B or ASTM A 48, Class 35; ductile iron conforming to ASTM A 36, grade 65-45-12; or 300 series stainless steel. Bronze castings or parts for internal trim shall conform to ASTM B 62.

4. Valve Ends:

All valves shall be furnished with flanged ends sized and drilled in accordance with ANSI B16.1, Class 125. Flanges shall be machined to a flat surface with a serrated finish in accordance with AWWA C207.

5. Pilot Valve:

The pilot valve for controlling operation of the main valve shall be a single seated, diaphragm operated and spring loaded type. The pilot valve shall be attached to the main valve with piping and isolation valves so arranged for easy access in making adjustments and also for its removal from the main valve while the main valve is under pressure.

6. Needle Valve:

The needle valve shall be all bronze or stainless steel and included with the main valve to control the speed of piston travel.

7. Operating Pressure:

The operating pressure shall be 150 psig.

8. Testing:

The body of the pressure regulating valve shall be given a hydrostatic test of 50 percent more than the operating pressure specified herein. A seat leakage test shall be made at the operating pressure.

9. Painting:

All surfaces of the valve shall be clean, dry and free from grease and dirt before painting. All iron surfaces, except the machined face of the flange, shall be shop painted with 2 coats of asphalt varnish in accordance with Federal Specification C 494 or shall be coated in conformance with AWWA C550. The face of flanges shall be shop coated with a rust preventive compound.

10. Certification:

The manufacturer shall furnish a sworn statement that the inspection and all of the specified tests have been made and the results thereof comply with the requirements of the applicable Standard(s) herein specified. A copy of the Certification including compliance with NSF Standard 61 shall be sent to Denver Water.

11. Acceptable Manufacturers:

Clay-Val
Golden-Anderson
Ross
Singer
Ames
OCV